

REMARKS

In light of the above amendatory matter and remarks to follow, reconsideration and allowance of this application are respectfully requested.

Claims 1, 2, 4, 5, 7, and 15-21 are amended to emphasize features of the present invention that had been claimed but might not have been clear. The present amendment is intended to clarify that which had been previously claimed. Claims 3, 6 and 8-14 are canceled. Accordingly, claims 1, 2, 4, 5, 7, and 15-21 are presented for consideration.

Claims 7, 14 and 21 were rejected under 35 USC 101 as being directed to non-statutory subject matter. Claims 7 and 21 are amended to recite "a program embodied in a computer-readable medium and, therefore, are directed to statutory subject matter. Claim 14 is canceled.

Claims 1-21 were rejected under 35 USC 103 in view of U.S Patent 6,944,229 (Son). It is respectfully submitted, Applicant's claims 1, 2, 4, 5, 7, and 15-21 are patentably distinct over Son for the reasons now discussed.

Son describes MPEG decoding using dynamically varying voltage and frequency of a processor. The operation frequency and voltage of the processor is set depending on the estimated system workload during an interrupt unit (col. 3, lines 15-18 of Son). A "diff value" is an index showing how close the actual speed of the system is to the system speed for real-time decoding, and represents the difference between the number of actually processed frames and the number of set frames (col. 4, lines 54-57). If the diff value is positive, the operation frequency and voltage of the processor are decreased, and if the diff value is negative, the operation frequency and voltage are increased (col. 4, lines 58-65). If the number of frames in an interval cannot be processed, frames are

dropped (col. 5, lines 1-12). The drop rate determines the quality of service; and the quality of service is reduced if power consumption is important (col. 6, lines 12-25). However, Son does not suggest reducing the number of bits per pixel of the decoded motion picture data or reducing the image frame rate of the decoded motion picture data on the basis of anticipated energy needed to decode and display the motion picture data and the remaining energy of the electric power source, as called for by Applicant's claim 1.

Claim 1 recites,

means for determining the remaining energy of said source;

decoding means for decoding the frames of image data of the encoded motion picture data at an adjustable image frame rate to provide an adjustable number of bits per pixel of the decoded motion picture data;

a controlling means for controlling the decoding means on the basis of anticipated energy needed for decoding and displaying the motion picture data and the remaining energy of the electric power source to dynamically control the playing quality of the motion picture data by selectively reducing said image frame rate or said number of bits per pixel.

These limitations are not suggested by Son. This reference does not suggest reducing the image frame rate or the number of bits per pixel if the remaining energy of the power source is not sufficient to decode and display the remaining frames of motion picture data.

The foregoing recitations are found in Applicant's claims 1, 2, 4, 5 and 7. Accordingly, Applicant's claimed invention, as defined by claims 1, 2, 4, 5 and 7, is unobvious over Son. The withdrawal of the rejection of these claims is respectfully requested.

Claims 15-21 all recite the feature of:

controlling the decoding means to dynamically control the playing quality of the motion picture data on the basis of a unit time during which a predetermined number of frames are to be displayed, a time needed to display said predetermined number of frames, or an anticipated time needed to display said predetermined number of frames.

Son does not suggest controlling the playing quality of MPEG decoding as a function of the unit time for displaying a predetermined number of frames, or the time needed to display that number of frames or the anticipated time needed to display that number of frames. Accordingly, claims 15-21 are patentably distinct over Son; and the withdrawal of the rejection of these claims is respectfully solicited.

Claims 2, 5, 16, 17, 19 and 20 depend from respective ones of claims 1, 4, 15 and 18 and, therefore, include the recitations of the claims from which they depend. That Son does not suggest these limitations has been discussed above. Consequently, dependent claims 2, 5, 16, 17, 19 and 20 are patentably distinct over Son for the same reasons that independent claims 1, 4, 15, 18 and 21 differ from Son. The withdrawal of the rejection of these dependent claims is, therefore, requested.


Statements appearing above in respect to the disclosures in the cited references represent the present opinions of the undersigned attorney and, in the event the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

Claims 1, 2, 4, 5, 7 and 15-21 are in condition for allowance. Early issuance of the Notice of Allowance of this application is respectfully solicited.

Please charge any additional fees that may be needed, and credit any
overpayment, to our Deposit Account no. 50-0320.

Respectfully submitted,

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